REMARKS

Claims 1-6, 8-15, 17-30 and 32-50 are pending. Claims 7, 16 and 31 are canceled. Reconsideration and allowance of the pending claims is respectfully requested.

Regarding the 35 U.S.C. §112, paragraph two Rejection

Claims 1, 9, 17 and 27 are rejected as being indefinite under 35 U.S.C. §112, paragraph two. Applicant respectfully traverses the rejection. Applicant disagrees with the Office's reading of the relevant claim language. The Office's interpretation takes the features out of the inherent context. For example, Claim 1, in part, recites:

• "a constraint system to constrain operation of the application according to multiple different constraints, the constraint system comprising a hierarchy of constraint layers, with each constraint layer containing a set of one or more constraints that customize operation of the application, wherein the constraint layers in the hierarchy have different respective priorities associated therewith,"

The Office's reading of the features is incorrect because it fails to take into account the recitation of "with each constraint layer containing a set of" which occurs before the in-question language. Thus, as described generally at page 38, lines 3-9 of the Applicant's Specification, and shown in FIG. 9 of the Applicant's Drawings, a layer may <u>contain</u> "a set of one or more constraints" rather than the "one or more constraints <u>providing</u> a first and second constraint layer" as

suggested by the Office. Emphasis added. In light of the foregoing, removal of the pending rejection is requested and allowance is solicited.

Claims 9 and 17 are similarly traversed.

Applicant traverses the rejection to Claim 27, as the claim does not recite "constraint levels" as the Office contends. In light of the foregoing, removal of the pending rejection is requested and allowance is solicited.

Regarding the 35 U.S.C. § 102 Rejection

Claims 1-44 were rejected under 35 U.S.C. § 102(e) as being anticipated by cited U.S. Patent No. 6,513,038 to Hasegawa et al. (referred to below as "Hasegawa"). Applicant respectfully traverses this rejection for the following reasons. Applicant notes that the Patent Serial Number appears incorrectly in the body of the Office Action, but is correctly cited in the "References Cited Section".

Claim 1, in part recites:

• "a constraint system to constrain operation of the application according to multiple different constraints, the constraint system comprising a hierarchy of constraint layers, with each constraint layer containing a set of one or more constraints that customize operation of the application, wherein the constraint layers in the hierarchy have different respective priorities associated therewith,

• wherein the constraint layers are organized within the hierarchy to provide a relation between a first constraint layer and a lower-priority second constraint layer such that the first constraint layer precludes behavior defined by

the second constraint layer if the behavior of the second constraint layer conflicts with behavior defined by the first constraint layer, but the second constraint layer does not constrain the first constraint layer, wherein the relation between the first constraint layer and the second constraint layer holds even when the first constraint layer is applied prior to the second constraint layer."

Applicant respectfully disagrees with the Office's reading of the Hasegawa reference. Hasegawa is directed to establishing easy and flexible data access. *Hasegawa, Abstract.* Hasegawa is not directed to "a constraint system to constrain operation of the application" (Claim 1) nor does the reference discloses application constraint. For example, the passages cited by the Office (as reproduced below) provide as follows:

> In other words, the present invention provides a scheme for accessing data management directory which provides a virtual directory hierarchical structure which is customized every application, e.g., (1) to extract the only data, which are requested by the application, from the substantial directories, (2) to simplify the manipulation of the related information between a plurality of directories, (3) to conceal the directory hierarchies, which are out of the search scope, for the purpose of the security protection, etc.

Hasegawa, Col. 2, lines 29-37.

> If, in two directories, the sets of classes and attributes of all upper entries from the first entry, which is located in the first directory as the main directory, to the root entry are equal to those of all upper entries from the second entry, which is located in the second directory as the subsidiary directory, to the root entry, then one view directory can be obtained by the union operation on the basis of the first entry and the second entry with respect to the first directory and the second directory. In other words, the directory in which the lower entry of the second entry on the second directory as the subsidiary directory is added to the lower entry of the first entry on the first directory as the main directory can be defined as the virtual view directory based on the union operation.

Hasegawa, Col. 16, lines 48-61.

For example, the entry set which is the difference set
between the staff entry set 1 of the "sales division" and the
staff entry set 2 of the "development division" is cut out by 65
using the difference operation from the company directory in
FIG. 11. The input view search instruction is translated into

the directory manipulation instruction concerning difference
operation via the similar procedures to the above. "Jiro
Tanaka", "Saburo Yamada", "Hanako Sato", which are the
staff entry of the "sales division" and "Shiro Takahashi" and
5 "Saburo Yamada", which are the staff entry of the "devel-
opment division" are searched from the company directory
as the staff entry set 1 and the staff entry set 2 respectively.
The entry which belongs to the staff entry set 1 but does not
belong to the staff entry set 2 are cut out in compliance with
10 the difference operation specified by the view definition
syntax, then the staff entries of "Jiro Tanaka" and "Hanako
Sato" can be derived. These two staff entries are bound
directly below the difference set operation entry. The view
directory being output from the directory set operation unit
15 20 is indicated by 211.
The directory set operation unit 20 acquires two entry sets
as the operation object and the operation name as the
difference operation as the parameter of the inputted direc-
tory set operation instruction. These two entry sets are stored
20 in the table format buffers which have the attribute (attribute

Hasegawa, page Col. 19, line 63-Col. 20, line 20.

In each instance, Hasegawa discusses data management (operation of the directory itself), but does not disclose constraining operation of an application as recited in Claim 1. Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. *W.L. Gore & Assocs. v. Garlock*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). This is to say that Hasegawa cannot anticipate the recited claims as Hasegawa is directed to how to store data (how data is handled) rather than operation of an application itself. Thus, Hasegawa does not disclose "to constrain operation of the application" but instead discloses how the data management occurs.

Moreover, even if we were to accept the Office's position above, for arguments sake, Hasegawa still fails to teach the recited subject matter because

FIGS. 24 A-B are directed to the arrangement of data within the directory rather than operation of the "view directory", as such, Hasegawa fails to teach "a set of one or more constraints that customize operation of the application". For at least the foregoing reasons, the pending rejection is improper. Removal of the pending rejection is requested and allowance is solicited. In light of the foregoing, removal of the pending rejection under 35 U.S.C. §102(e) is requested and allowance is solicited.

Claims 2-6 and 8 are allowable as depending from an independent claim which is in a condition for allowance. Applicant traverses the rejection. Claims 2-6 and 8 recite additional features which are not found in the art of record. Removal of the pending rejection is requested and allowance is solicited.

In particular, Hasegawa fails to disclose legally mandated constraints (Claim 2). Hasegawa, Col. 23, lines 1-42, cited for this disclosure, is reproduced below. "An anticipating reference must describe the patented subject matter *with sufficient clarity and detail* to establish that the subject matter existed and that its existence *was recognized by persons of ordinary skill in the field of invention.*" *ATD Corp.v. Lydall, Inc.,* 48 USPQ.2d 1321,1328 (Fed. Cir. 1998) citing *In re Spada,* 15 USPQ.2d 1655, 1657 (Fed. Cir. 1990). Emphasis added.

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Next, the case where the view directory is generated by the join operation which binds the related information between the attributes of the company directory in FIG. 11 will be explained with reference to FIGS. 28A to FIG. 28E. If the attributes of mutual entries have the association in one directory or between a plurality of directory trees, the join operation is an operation for designating the joining condition between two object classes using the entry set which is grouped by the object class having the association as one unit to thus derive the view directory consisting of sets of the entries which satisfy the joining condition.

For example, as shown in FIG. 28E, it can be defined as given in following formula (3-1) to contain "B Company" in the "customer" attribute as the joining condition between the "company name" attribute in the "B Company" entry in the company class on the company directory and the "customer" attribute in the "staff" entry in the staff class.

$$\begin{aligned}
&(\text{attribute value of the "customer" attribute in the "staff" entry}) \\
&\quad \subseteq (\text{attribute value of the "company name" attribute in the "B} \\
&\quad \text{Company" entry}) \qquad\qquad\qquad (3\text{-}1)
\end{aligned}$$

The inputted view search instruction 11 is translated into the directory manipulation instruction 13 of the join operation via the similar procedures to the above. According to the above joining condition, the "B Company" entry is referred to and at the same time the "staff" entry in the "sales" entry of the division class is also referred to. Out of the "staff" entry below the "sales" entry, only "Jiro Tanaka" shown in FIG. 28B and "Saburo Yamada" shown in FIG. 28C are selected as the manipulation object in accordance with the join operation specified by the view definition syntax. In this case, all "staff" entries in the other entries of the division class are extracted. A new entry set consisting of these entries is generated. On the other hand, "Hanako Sato" entry which does not satisfy the above joining condition is out of the manipulation object. The view directory being outputted from the directory set operation unit 20 is indicated by 281.

Next, the case where the particular entry sets which are bound directly below one entry in the class on the directory are cut out from the company directory in FIG. 11, and then the view directory is generated by the aggregation operation which binds directly below one entry in other classes will be explained with reference to FIGS. 29A and 29B.

Hasegawa, Col. 23, lines 1-42.

Applicant traverses the rejection of Claim 3 as the same passage of Hasegawa (above) is cited as disclosing "a company mandated constraint'. Nowhere is a company mandated constraint disclosed. Rather, at best, the passage merely indicates that "sale staff" may be manipulated to extract some employee names.

Applicant traverses the rejection of Claim 4 as the same passage of Hasegawa (above) is cited as disclosing "customer constraints". Nowhere is customer constraints disclosed.

Claims 5, 6, and 8 are similarly traversed as all the rejection cite the same passage of Hasegawa (with the addition of FIGS. 24A-C). Claims 5, 6 and 8 (respectively in part recite) "cultural aspects", "preferences of an end user" and "constraint by a sum of constraints". As these items are not disclosed a *prima facie* case of anticipation has not been established. In light of the foregoing, removal of the pending rejection is requested and allowance is solicited. The figures are reproduced below,
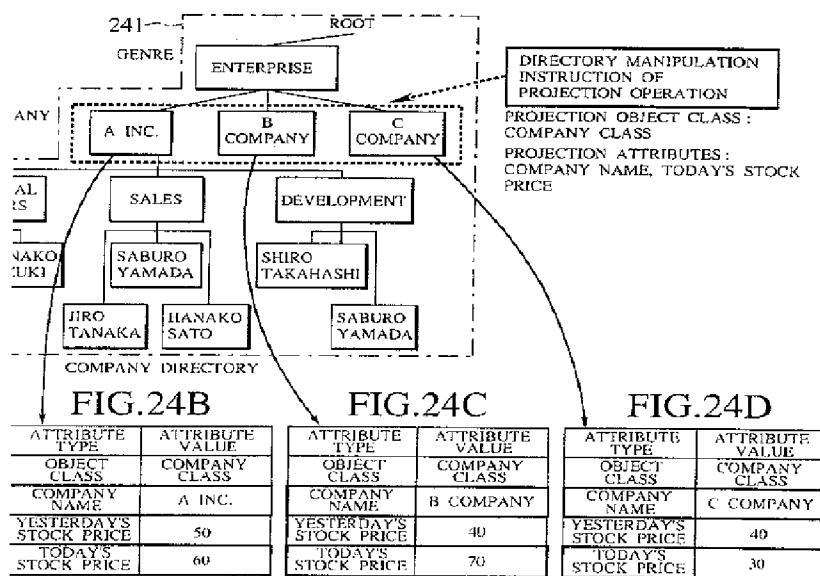
Hasegawa, FIGS. 24A-24D.

Applicant traverse the rejection of **Independent Claim 9** under 35 U.S.C. §102(e). The rejection is improper as Hasegawa fails to disclose each and every limitation. Claim 9, in part, recites,

- "a multi-layer application executing on the computers to handle client requests, the multi-layer application comprising:

  - a problem-solving logic layer to process the client requests according to an associated problem domain, the problem-solving logic layer containing one or more execution models to perform various sets of tasks when processing the client requests, the problem-solving logic layer producing replies to the client requests;

  - a presentation layer to structure the replies produced by the problem-solving logic layer in a manner that makes the replies presentable on various client devices; and

  - a constraint hierarchy of multiple constraint layers, each constraint layer containing a set of one or more constraints that specify how the replies should be structured to customize the replies for specific sets of conditions, wherein the constraint layers in the hierarchy have different respective priorities associated therewith,

  - wherein the constraint layers are organized within the hierarchy to provide a relation between a first constraint layer and a lower-priority second constraint layer such that the first constraint layer precludes behavior defined by the second constraint layer if the behavior of the second constraint layer conflicts with behavior defined by the first constraint layer, but the second constraint layer does not constrain the first constraint layer, wherein the relation between the first constraint layer and the second constraint layer holds even when the first constraint layer is applied prior to the second constraint layer."

Applicant disagrees with the Office's interpretation of the Hasegawa reference. First, Hasegawa is directed to data management rather than

constraining "how the replies should be structured". Hasegawa does not disclose the recited subject matter because Hasegawa discloses how to access data and what data is provided rather than how "the replies should be structured". Thus, Hasegawa does not disclose how to constrain operation in a hierarchical fashion such as by structuring a reply in a particular manner, or in the alternative, varying they structure of the reply.

In this way, Hasegawa does not disclose "first constraint layer precludes behavior defined by the second constraint layer if the behavior of the second constraint layer conflicts with behavior defined by the first constraint layer" because in each instance Hasegawa is disclosing how the data management directory functions. Put a different way, Hasegawa does not disclose the presently recited claim because there is no discussion of a first constraint layer constraining behavior of a second layer. For example, the Application discloses that,

> One advantage of employing the constraint hierarchy is that multiple instances of the same application can behave entirely differently based on the constraint layers in place and the user's situation during interaction with the application. For instance, another user located in a different culture may receive a logon page with the legal notice (legal constraint layer) and company logo (corporate constraint layer), depicted in red, gold and white colors (customer constraint layer without being further constrained by the cultural constraint layer) and with objects and images conforming to a 1960s theme (user constraint layer). The login page would look very different, but would permit user interaction with the same underlying server application. *Application, Page 41, lines 6-15.*

Thus, Hasegawa does not disclose multi-level control (e.g., a first layer constraining behavior of a second lower layer). For at least the foregoing reasons,

the pending rejection is improper. Removal of the pending rejection is requested and allowance is solicited.

Claims 10-15 are allowable as depending from an independent claim which is in a condition for allowance. Applicant traverses the rejection. Claims 10-15 recite additional features which are not found in the art of record. Removal of the pending rejection is requested and allowance is solicited.

In particular, Claim 10 is allowable because the cited passage of Hasegawa (Col. 23, lines 1-42 (above)) fails to disclose adding or removing constraint layers "that specify how the replies should be structured to customize the replies". In contrast, the Hasegawa passage merely discloses extracting data based on differing attributes rather than selectively adding or removing constraints which may constrain how the reply is structured. Thus, while the data may change, the passage fails to disclose selectively adding or removing layers (if a particular layer is going to be constrained or not) in which the layers specify the structure of the reply. As a result, Hasegawa does not disclose constraining how the reply is structured such as to account for legal considerations, cultural considerations and so on as discussed in the Application.

With respect to **Claim 11**, Hasegawa fails to disclose legally mandated constraints. Hasegawa, Col. 19, line 63 to Col. 20 line 42, cited for this disclosure (the bulk of the passage is reproduced above) fails to disclose a legal constrain or any legal consideration. Instead, the passage is merely directed to describing directory manipulation with respect to "staff" in a "development division". As not

every feature is shown, the reference fails to anticipate the subject matter of Claim 11.

Applicant similarly traverses the rejection of Claims 12-15 as Hasegawa, Col. 23, lines 1-23; FIGS. 24A-C (reproduced above) fail to show: company-mandated constraints (such as limiting access to certain personnel (Application, Page 40, lines 1-4)); customer-orientated constraints (Application, Page 40, lines 5-12); cultural constraints (Application, Page 40, line 26 - Page 41, line 5); user constraints (Application, Page 40, lines 13-17). In light of the foregoing, removal of the pending rejection is requested and allowance is solicited.

The rejection of **independent Claim 17** is similarly traversed as Hasegawa fails to at least disclose at least the following Items: (1) "each constraint layer containing a set of one or more constraints that constrain operation of an application", (2) "such that a first constraint layer limits a second constraint layer but the second constraint layer does not limit the first constraint layer", and (3) a constraint resolver to resolve the constraint layers so that operation of the application is constrained by a set of the constraints in the constraint layers, wherein the constraint resolver is configured to reconcile any conflicts among constraints imposed by different constraint layers."

Hasegawa fails to disclose Item 1 inasmuch as Hasegawa is directed to data management within a directory and not operation of the application. This is to say that while Hasegawa may disclose operation of the data management directory,

Hasegawa does not disclose whether operations of the data management directory will be constrained or not (including a hierarchy) or the affect of the constraint. Hasegawa fails to disclose Item 2 because Hasegawa is not directed towards whether the operation will be constrained or not or the affect of the constraint, but rather what data is gathered. Further, Hasegawa does not disclose a resolver as recited. Additionally, a resolver is unnecessary in Hasegawa as the Hasegawa reference fails to indicate that there is a potential conflict which would need resolution. In comparison, the Application provides the example of "[f]or instance, constraints imposed by the fifth constraint layer to accommodate user preferences are subject to constraints imposed by any of the four higher constraint layers. If a higher constraint layer imposes constraints that prevent a behavior preferred by the user (e.g., the cultural constraint layer objects to the color red, even though this color is preferred by the user), the user preference is not accommodated by the application." Application, page 40, lines 19-25. For at least the foregoing reasons, the pending rejection is improper. Removal of the pending rejection is requested and allowance is solicited.

Claim 18 is allowable because the cited passages of Hasegawa (Col. 19, line 62-Col. 20, line 42; FIGS. 24A-C; and Col. 21, line 55-Col. 22, line 20) fail to disclose adding or removing constraint layers "each constraint layer containing a set of one or more constraints that constrain operation of an application". In contrast, the Hasegawa passages merely discloses extracting data based on differing attributes rather than selectively adding or removing constraint layers

which may constrain how the reply is structured (via a set of one or more constraints). Thus, while the data may change, the passages fail to disclose selectively adding or removing layers in which the layers may direct operation of the application. As a result, Hasegawa does not disclose constraining operation such as to account for legal considerations, cultural considerations and so on as discussed in the Application.

Claims 18-23 are allowable as depending from an independent claim which is in a condition for allowance. Applicant traverses the rejection. Claims 18-23 recite additional features which are not found in the art of record. Removal of the pending rejection is requested and allowance is solicited.

With respect to **Claim 19**, Hasegawa fails to disclose legally mandated constraints. Hasegawa, Col. 19, line 62 to Col. 20 line 42; FIGS. 24A-C; and Col. 21, line 55-col.22 line 20 cited for this disclosure (the bulk of the passage is reproduced above) fails to disclose a legal constrain or any legal consideration as discussed above. Instead, the passages are merely directed to describing directory manipulation with respect to "sales staff", "companies and stock prices" and describing FIGS. 24A-C (in which data is manipulated). This fails to disclose constraining operation of an application (such as control of the application itself (due to some legal reasoning)) but instead merely discloses what data is associated with what attributed. As not every feature is shown the reference fails to anticipate the subject matter of Claim 19.

Applicant traverses the rejection of **Claims 20-23** as Hasegawa, Col. 19, line 62 to Col. 20 line 42; FIGS. 24A-C; and Col. 21, line 55-col.22 line 25 (reproduced above) fail to show: company-mandated constraints (such as limiting access to certain personnel (Application, Page 40, lines 1-4); customer-orientated constraints (Application, Page 40, lines 5-12); cultural constraints (Application, Page 40, line 26 - Page 41, line 5); user constraints (Application, Page 40, lines 13-17). In light of the foregoing, removal of the pending rejection is requested and allowance is solicited.

Applicant traverse the rejection of **Independent Claim 24** under 35 U.S.C. §102(e). The rejection is improper as Hasegawa fails to disclose each and every limitation. Claim 24, in part, recites,

• "storing a hierarchy of constraints, each constraint being configured to constrain operation of a server application, wherein the constraints in the hierarchy have different respective priorities associated therewith; and

• evaluating an operation of the server application in view of the hierarchy of constraints to modify operation according to the constraints in the hierarchy, wherein the constraints are organized within the hierarchy to provide a relation between a first constraint and a lower-priority second constraint such that the first constraint precludes behavior defined by the second constraint if the behavior of the second constraint conflicts with behavior defined by the first constraint, but the second constraint does not constrain the first constraint,

wherein the relation between the first constraint and the second constraint holds even when the first constraint is applied prior to the second constraint."

The pending rejection of Claim 24 is improper because Hasegawa fails to disclose "storing a hierarchy of constraints, each constraint being configured to constrain operation of a server application". As generally discussed previously, Hasegawa fails to teach constraints being "configured to constrain operation of a server application", instead Hasegawa discloses data access which does not constrain operation but instead is management of the data itself. This fails to constrain or not constrain operation of a server application. For example, Hasegawa does not constrain whether or not the data management directory operates or the behavior of the directory but instead is how the directory functions.

Similarly, Hasegawa does not disclose a hierarchy of a first and a second constraint layers as nowhere does Hasegawa disclose that the data management directory would behave in a manner which would conflict with a higher level control. Take for example, the Office's cited passage of Col. 19-20, this passage is limited to describing directory manipulation instructions which searches for data correspond to input factors (e.g., is "Saburo Yamada" within the desired "sales division"?). This does not anticipate the recited claim because there is no showing or disclosure that indicates that the "data directory" would behave in any other fashion and then implement constraint layers to "modify operation

according to the constraints in the hierarchy". For at least the foregoing reasons, the pending rejection is improper. Removal of the pending rejection is requested and allowance is solicited.

With respect to **Claim 25**, Hasegawa fails to disclose legally mandated constraints. Hasegawa, Col. 19, line 62 to Col. 20 line 42 and Col. 21, line 55-col.22 line 25 cited for this disclosure (the bulk of the passage is reproduced above) fails to disclose a legal constrain or any legal consideration as discussed above. Instead, the passage is merely directed to describing directory manipulation with respect to "sales staff", "companies and stock prices". This fails to disclose constraining operation of a server application (such as control of the application itself (due to some legal reasoning)) but instead merely discloses what data is associated with what attributed. As not every feature is shown, the reference fails to anticipate the subject matter of Claim 19.

Applicant traverses the rejection of **Claim 26** as Hasegawa, Col. 8, line 45-Col. 9, line 55 and Col.5, line 45-Col. 6 line 58 (reproduced below) fail to disclose: company-mandated constraints (such as limiting access to certain personnel (Application, Page 40, lines 1-4); customer-orientated constraints (Application, Page 40, lines 5-12); cultural constraints (Application, Page 40, line 26 - Page 41, line 5); user constraints (Application, Page 40, lines 13-17). "An anticipating reference must describe the patented subject matter *with sufficient clarity and detail* to establish that the subject matter existed and that its existence *was recognized by persons of ordinary skill in the field of invention.*" *ATD*

Corp.v. Lydall, Inc., 48 USPQ.2d 1321,1328 (Fed. Cir. 1998) citing *In re Spada,*

15 USPQ.2d 1655, 1657 (Fed. Cir. 1990). Emphasis added. Nowhere are the

features of Claim 26 disclosed, including company-mandated constraints,

customer-orientated constraints, cultural constraints, or user constraints. In light

of the foregoing, removal of the pending rejection is requested and allowance is

solicited.

manipulation based on the manipulation reply obtained by the entry unit manipulation instruction 15 in entry unit; a directory manipulation unit 17 for obtaining an entry unit manipulation reply 18 by accessing the content directory 16 according to the entry unit manipulation instruction 15; and a directory set operating unit 20 for deriving a view directory 21 from the operation result by applying the set operation to the entry sets which are the set operation object derived from the content directory 16 every operation type, based on a directory set operation instruction 19 being outputted from the directory batch processing unit 14. The directory access apparatus according to this embodiment may further comprise a display unit 22 for displaying the derived view directory 21 as the hierarchical tree structure, or the like to the user on the inside or the outside of the application 6.

The view definition syntax storing unit 2 stores the view definition syntax 1, which defines views of applications for the content directory 16, into the view definition syntax sets 3.

The directory manipulating syntax 5 described in the view definition syntax comprises a directory manipulation word which is a syntax for manipulating the directory, a class name, and its attribute.

The translation rule storing unit 7 stores the translation rules, which are employed to translate the view definition syntax corresponding to the view search instruction 11 into the directory manipulation instruction 13, in the view search instruction translation rule sets 6 every type of the set operation.

The directory manipulation translation unit 12 specifies the directory manipulating syntax 5, which corresponds to the view name designated by the view search instruction 11, in the view definition syntax sets 3, then decides the set of the entry and its attribute which are the manipulation object to manipulate the information on the content directory 16 based on the specified directory manipulating syntax 5, and then translates the view search instruction 11 inputted from the application 6 into the directory manipulation instruction 13, which is the manipulation to acquire attribute values of the entry sets collectively, based on the view search instruction translation rule sets 6.

The directory batch processing unit 14 receives the directory manipulation instruction 13 which are the batch (i.e., collective) manipulation instruction of the set of the entry and its attribute, generates the entry unit manipulation instruction 15 which manipulates the attribute value of the information on the content directory in entry unit, and then outputs it to the directory manipulation processing portion 17. Also, the directory batch processing unit 14 generates the batch result of the directory manipulation by integrating the entry unit manipulation reply 18 outputted from the directory manipulation unit 17, then translates this result of the batch directory manipulation into the directory set operation instruction 19 based on the set operation which is defined by the corresponding directory manipulating syntax 5 in the view definition syntax sets 3, and then output it.

The directory manipulation unit 17 receives the entry unit manipulation instruction 15, then manipulates the content directory 16 using this entry unit manipulation instruction 15, and then returns the result derived by this manipulation as the entry unit manipulation reply to the directory batch processing unit 14 as the directory manipulation instruction source.

The directory set operating unit 20 applies the set operation to the entry set serving as the set operation object, which is acquired from the content directory 16, every operation type based on the directory set operation instruction 19, and then generates the result of this set operation as the view directory 21. When the operation types are the projection operation, the selection operation, the join operation, the aggregation operation, etc. described later, the directory set operating unit 20 may be composed in the directory batch processing unit 14, and may construct the result of the directory manipulation by integrating the entry unit manipulation reply 18 without using the directory set operation instruction 19 as the hierarchical tree structure so as to generate the view directory 21.

The display unit 22 displays the generated view directory 21 as the hierarchical tree structure to the user.

Next, details of the deriving process of the view directory 21 in the directory access apparatus according to this embodiment will be explained.

The directory access apparatus according to the first embodiment provides the directory structure, in which a plurality of applications share a group of content directories and individual applications are easy to utilize, as the view directory 21.

First, this embodiment provides a function for deriving a new directory tree by cutting out the information on the

Hasegawa, Col. 8, line 45-Col. 9, line 55.

FIG. 23 are views showing an example of the view directory derived by a Cartesian product operation from the company directory in FIG. 11 respectively;

FIGS. 24A to 24D are views showing an example of the view directory derived by a projection operation from the company directory in FIG. 11 respectively;

FIGS. 25A and 25B are views showing an example of the view directory derived by a projection operation without top sections from the company directory in FIG. 11 respectively;

FIGS. 26A to 26D are views showing an example of the view directory derived by a selection operation from the company directory in FIG. 11 respectively;

FIGS. 27A and 27B are views showing an example of the view directory derived by other selection operation from the company directory in FIG. 11 respectively;

FIGS. 28A to 28E are views showing an example of the view directory derived by a join operation from the company directory in FIG. 11 respectively;

FIGS. 29A to 29B are views showing an example of the view directory derived by an aggregation set operation from the company directory in FIG. 11 respectively; and

FIG. 30 is a view showing an example of a system configuration of a directory access apparatus according to an embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Here, embodiment of a scheme for accessing data management directory according to the present invention will be explained in detail with reference to the accompanying drawings.

FIG. 15 is a view showing a directory search instruction corresponding to the search scopes in FIG. 14;

FIGS. 16A and 16B are views showing an example of two content directories as the object of the union operation respectively;

FIG. 17 is a view showing an example of the view directory of all divisions of the company derived from the directories in FIGS. 16A and 16B;

FIG. 18 is a view showing an example of a view definition syntax employed to obtain the view directory in FIG. 17;

FIGS. 19A and 19B are views showing a view search instruction and a base entry and a search scope in the view search instruction respectively;

FIGS. 20A and 20B are views showing the search scopes of a directory manipulation instruction 1 and a directory manipulation instruction 2 respectively;

FIG. 21 is a view showing an example of the view directory derived by a difference operation from the company directory in FIG.11;

FIG. 22 is a view showing an example of the view directory derived by a intersection operation from the company directory in FIG. 11;

First, the principle of the scheme for accessing data management directory according to the present invention will be explained hereunder. In the scheme for accessing directory according to the present invention, since a plurality of applications can share the information on the substantial directories and a virtual directory structure which is customized to be easily utilized by individual applications can be provided, it is possible to manage the objects in which the information on the available substantial directories are selected in class unit, entry unit, or attribute unit as the view definition syntax (definition information) and to manipulate the substantial directories by using the view definition syntax. In this view definition syntax, views peculiar to individual applications are defined for substantial directories for sorting and managing actual data (referred to as "content directories" hereinafter).

These view definition syntaxes are defined for the content directories as various set operations using the relational algebra. Respective applications can derive the view directories as the virtual directories, which are customized to fit for the purpose of application, by carrying out the directory manipulation with the use of the view definition syntaxes. This view directory is a virtual directory which cuts out a part of the content directories, or integrates a plurality of

Hasegawa, Col. 5, line 45-Col. 6, line 58.

Applicant traverses the Rejection of **Independent Claim 27** for at least the below reasons. Claim 27, in part, recites,

- "structuring the reply to define how the reply will appear when presented at the client; and

- constraining said structuring according to a hierarchy of plural constraints to customize appearance of the reply, wherein the constraints in the hierarchy have

different respective priorities associated therewith, wherein the constraints are organized within the hierarchy to provide a relation between a first constraint and a lower-priority second constraint such that the first constraint precludes behavior defined by the second constraint if the behavior of the second constraint conflicts with behavior defined by the first constraint, but the second constraint does not constrain the first constraint, wherein the relation between the first constraint and the second constraint holds even when the first constraint is applied prior to the second constraint, the constraints comprising one or more of:

legally mandated constraints to constrain appearance of the reply according to legal principles;

company-mandated constraints to constrain appearance of the reply according to preferences of a company that operates the application;

customer constraints to constrain appearance of the reply according to preferences of customers;

cultural constraints to constrain appearance of the reply according to cultural aspects; and

end user constraints to constrain appearance of the reply according to preferences of an end user."

Hasegawa fails to disclose each and every feature of the recited subject matter sufficient to raise a rejection under 35 U.S.C. §102(e). In particular, Hasegawa fails to disclose "structuring the reply to define how the reply will appear when presented at the client". The Office has failed to cite any portion of Hasegawa for this disclosure. Hasegawa fails to disclose "constraining said structuring according to a hierarchy of plural constraints to customize appearance

of the reply." Hasegawa is a data management directory and does not "customize appearance of the reply" such as in accordance with constraints such as legal, company mandated, cultural or end user. Thus, while different data may be accessed, there has been no showing that Hasegawa discloses constraining the reply to account for a cultural constraint as recited and discussed in the Application. Moreover, the Office has not cited any portion of Hasegawa in the rejection of Claim 27 which discloses customizing the appearance of the reply as discussed in the Application at page 38, lines 10-28. For a prior art reference to anticipate a claim, the reference must disclose each and every element of the claim with sufficient clarity to prove its existence in the prior art. ...Although this disclosure requirement presupposes the knowledge of one skilled in the art of the claimed invention, that presumed knowledge does not grant a license to read into the prior art reference teachings that are not there. *Motorola, Inc. v. Interdigital Tech. Corp.*, 121 F.3d 1461, 43 USPQ 2d 1481, 1490 (Fed. Cir. 1997). For at least the foregoing reasons, the pending rejection is improper. Removal of the pending rejection is requested and allowance is solicited.

Claim 28 is allowable as depending from an independent claim which is in a condition for allowance. Applicant traverses the rejection. Claim 28 recites additional features which are not found in the art of record. Removal of the pending rejection is requested and allowance is solicited. In particular, FIGS. 24A-C (above) cited as disclosing the features of Claim 28 fail to show "adding or removing constraints to change the set of constraints being applied to the

structuring of the reply". The cited portion of Hasegawa does not do this because the structure of the reply never changes. Thus, while data may change (e.g., today's stock price or the company name changes) the structure does not change. Since no change occurs in the way the data is structured (according to added or removed constraints) the claim is not anticipated. In light of the foregoing, removal of the pending rejection is requested and allowance is solicited.

Claim 29 is allowable for at least the following reasons, (1) Hasegawa fails to disclose structuring replies, (2) Hasegawa fails to disclose a hierarchy of constraints, or (3) Hasegawa fails to disclose legally mandated constraints, company-mandated constraints, customer constraints or cultural constraints.

As discussed above, with respect to other claims, Hasegawa does not disclose structuring replies, thus while the data may change, the "manner" of the reply does not change. Take for example, Hasegawa Col. 19-20 (cited for this disclosure) the passage does not disclose how the structure may vary but instead discloses simply inserting sales force personnel in to entries. At no time does Hasegawa explain how the structure would be varied to take into account a cultural constraint such as a cultures fondness or dislike of a particular color or the like as discussed in the Application.

The Hasegawa reference does not disclose constraints because the reference fails to indicate that the system would structure a different reply but for the enforcement of a constraint. Thus, while Hasegawa may access different data there has been no showing that the structure of the reply would change as a result

of the various constrains arranged in a hierarchy. As such, Hasegawa does not anticipate the present claim because not every feature is discloses as is required for and anticipating reference.

As for the recited constraints, in order for a reference to be proper under §102 the reference must disclose each feature sufficiently to show that it was within the possession of the prior art or if the Offices is attempting to make an inherency argument, the Office is supposed to specify how this would be inherently disclosed in the reference. The Office has not done the foregoing. In light of the foregoing, removal of the pending rejection is requested and allowance is solicited.

Claims 30, 32-40 are allowable as depending from an independent claim which is in a condition for allowance. Applicant traverses the rejection. Claims 30, 32-40 recite additional features which are not found in the art of record. Removal of the pending rejection is requested and allowance is solicited.

With respect to Claim 30, nowhere in the cited passage (reproduced below) is "meta data" disclosed

According to still another aspect of the present invention,
10 there is provided a computer-readable recording medium for causing a computer to execute a processing for accessing a substantial directory for sorting and managing data, the processing including: (a) a process for inputting a view search instruction for manipulating data, which is defined by a combination of any class and attribute requested by an
15 application; (b) a process for translating the view search instruction into a directory manipulation instruction for manipulating one or a plurality of substantial directories according to a prescribed view definition; (c) a process for extracting entries from the substantial directories using the
20 directory manipulation instruction to derive an entry set; and (d) a process for generating a customized directory corresponding to the view search instruction of the application according to a combination of the class and the attribute as a result of a set operation, by applying the set operation
25 defined in the view definition to the entry set.

According to still another aspect of the present invention, there is provided a computer-readable recording medium for causing a computer to execute a processing for accessing a substantial directory for sorting and managing data which
30 joins entries which stores sets of attribute types and attribute values as a tree structure based on a structure of an object class, the processing including: (aa) a process for generating a view definition in which a view definition identifier is attached to a directory manipulation syntax which contains at least a directory manipulation word specifying one or a
35 plurality of set operations, and class and attribute of the substantial directories as a manipulation object; (bb) a process for storing a generated view definition in a view definition set; (cc) a process for inputting a view search instruction for manipulating data, which is defined by a
40 combination of arbitrary class and attribute requested by an application; (dd) a process for specifying a directory manipulation syntax having the view definition identifier described in the view search instruction from the view definition set and translating the view search instruction into
45 a directory manipulation instruction which acquires collec-

Hasegawa, Col. 23, lines 1-42.

Removal of the pending rejection to Claim 30 is requested.

The rejection of Claims 33-38 is improper as the Office has failed to show "each constraint layer represents a different source entity" (Claim 33) as discussed at page 41. The Col. 19-20 and FIGS. 24A-C passages asserted as disclosing these features are reproduced above. These passages fail to disclose layers representing different source entities. The cited portions merely discuss data management and does not disclose customizing the application (Claim 33) (as generally discuss in the Application at pages 38-42) in accordance with the particular claim. Removal of the pending rejection is requested.

Claims 39-44 are allowable as depending from an independent claim which is in a condition for allowance. Applicant traverses the rejection. Claims recite additional features which are not found in the art of record. Removal of the pending rejection is requested and allowance is solicited.

Regarding the 35 U.S.C. § 103(a) Rejection

The rejection of **Claims 45-50** over Hasegawa in view of "the knowledge of one of ordinary skill in the art" is improper, and should be removed, for at least the following reasons.

First the Office has failed to show, or provide evidence, why one of ordinary skill in the art would have wanted to modify Hasegawa as suggested. A combination under 35 U.S.C. § 103(a) is only proper when the Office has provided some motivation for making the combination and has established that this motivation is within the level of skill in the art at the time of the invention. In the present Action, the Office has failed explain why one of ordinary skill in the art would have wanted to arrange the constrains as recited in the claim. While the Supreme Court's recent Teleflex decision indicated that no rigid rule applies for determining motivation and that application of "common sense" based on the knowledge of one of skill in the art (at the time of the invention) may be permissible, the Office is still obligated to provide a rationale that would have caused one of ordinary skill in the art to make the combination (at the time of the invention), including supporting evidence such that the Applicant may rebut the

position or offer evidence to the contrary. "Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR International Co. v. Teleflex*, 550 U.S. unknown, 04-1350, 1 14 (2007). Thus in order for a *prima facie* case of obviousness to exist, the Office is obligated to explain why one of ordinary skill in the art would pick the recited constraints (and as applicable) arrange the constraints in the particular order.

Additionally, the Office's rejection of the claim evidences the fact that the recited features would not be obvious. The present rejection notes that the "because doing so would customize the <u>file</u> in the same manner since changing the sequence is a <u>design choice</u> and not a patentably distinct feature." Action, Page 16, Item 4. Emphasis added. This rejection inherently evidences that the Office has failed to consider the term "hierarchy" because the features at issue are not merely a list of constraints but form a hierarchy (see claims 45-50). This is to say that the Office has not shown why one of ordinary skill in the art would have selected the recited particular constraints/particular hierarchy, but instead merely considers the constraints to be a "list" (replaceable and "re-orderable" within the design choice of one of ordinary skill in the art). The Office has failed to show that one of skill in the art would arrange the hierarchy as recited (e.g., this is more than a mere design choice as the arrangement prioritizes some "constraints" over others). Second, the Office is incorrect regarding the customization of the "file".

The claims at issue recite (respectively with regards to Claims 45 and 46), constraining "operation of the application" or "structure replies" and not a "file" as indicated the Office. Additionally, as discussed in the Application, the way in which the constraints are applied may change "operation of the application" or the structure of the reply. As a result the Office's rationale that "because doing so would customize the file in the same manner . . ." Only serves to indicate that subject matter is patentable because the Office is apparently contenting that hierarchical arrangements do not result in different "operation" or structuring of "replies" while the present Application discusses how the particular hierarchy may impact operation or structuring of replies. For at least the foregoing reasons, the pending rejection is improper. Fore at least the above reasons, removal of the pending rejection is requested and allowance is solicited.
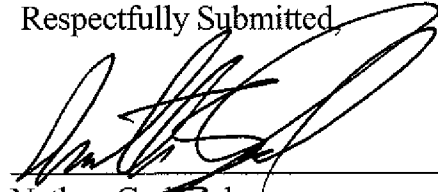
Conclusion

The arguments presented above are not exhaustive; Applicant reserves the right to present additional arguments to fortify its position. Further, Applicant reserves the right to challenge the alleged prior art status of one or more documents cited in the Office Action.

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance and such allowance is respectfully solicited. The Examiner is urged to contact the undersigned if any issues remain unresolved by this Amendment.

Respectfully Submitted

Dated: _8. 10. 07_   By: _____

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